

**CALIFORNIA COASTAL COMMISSION**

45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200



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## STAFF REPORT AND RECOMMENDATION

### ON CONSISTENCY DETERMINATION

Consistency Determination No.	<b>CD-074-00</b>
Staff:	JRR-SF
File Date:	07/10/2000
45th Day:	08/24/2000
60th Day extended to:	09/18/2000
Commission Meeting:	09/14/2000

## FEDERAL AGENCY: **CORPS OF ENGINEERS**

### DEVELOPMENT

#### LOCATION:

Offshore of Portuguese Bend cove, Palos Verdes Peninsula, City of Rancho Palos Verdes (Exhibit 1)

### DEVELOPMENT

#### DESCRIPTION:

Construction of dike to contain sediment generated by landslide (Exhibits 2 and 3)

## EXECUTIVE SUMMARY

The Corps consistency determination allows for the construction of a dike offshore of Portuguese Bend cove, City of Rancho Palos Verdes. The Corps would construct the 2,500 foot-long dike, 400 feet offshore. The dike would have a maximum crest elevation of 24 feet above MLLW and would be in water depth 16 feet below MLLW.

Although the proposed dike is a shoreline structure, as described by Section 30235 of the Coastal Act, the Commission is not required to approve it. Section 30235 of the Coastal Act requires the Commission to permit shoreline structures if they are necessary to protect existing structures, coastal dependent uses, or public beaches. The proposed dike does not protect any of these uses, and therefore, under Section 30235 the Commission is not required to approve it.

The construction of the dike requires the placement of fill into open coastal waters and the project must be consistent with Section 30233 of the Coastal Act. The Corps characterizes the dike as a restoration project, making it an allowable fill under the Coastal Act. However, the Commission concludes that the project would not restore the habitat values in the Portuguese Bend Cove and the consistency determination lacks sufficient information to determine if the dike would enhance resource values down coast. After the dike is installed, the area would take between nine and 87 years to re-expose hard rock habitat. Over that period of time, any number of factors could affect kelp habitat and prevent its restoration. Additionally, because sediment is accumulating in these areas, the Commission believes that they are depositional and would not be exposed by natural processes. Therefore, this aspect of the project is not an allowable use pursuant to Section 30233(a) of the Coastal Act.

A second restoration purpose of the proposed dike is to improve existing kelp habitat downcoast. According to the Corps, the existing kelp forests south of Portuguese Bend are severely degraded by landslide generated turbidity. However, the Corps' data used to characterize the value of the site are not sufficient to support such a conclusion and the Corps did not investigate the cause of any degradation, should it exist. In its Feasibility Study, the Corps simply assumes that turbidity is adversely affecting downcoast kelp habitat. Therefore, the consistency determination does not provide enough information to document that this benefit would occur.

The Corps' consistency determination did not adequately consider alternatives. First, the Corps did not consider landslide stabilization as a feasible method to reduce sedimentation. Second, the Corps did not consider alternative methods for enhancing marine resources that may have less of an adverse effect on marine resources. Third, and finally, the Commission believes that the "no-project" alternative may be a less damaging feasible alternative for the following reasons: 1) the Corps over estimated the amount of sediment produced by the landslide; and 2) there is some evidence that kelp habitat in Portuguese Bend may be restored naturally. Therefore, the Corps' alternative analysis is insufficient for the Commission to conclude that the proposed project is the least damaging feasible alternative as required by Section 30233(a) of the Coastal Act.

The proposed project would significantly affect marine resources. The dike would cover approximately 420,000 square feet (9.64 acres) of subtidal and intertidal soft bottom habitat. Additionally, the dike would contain sediment from the landslide in the area between the dike and the shoreline. After construction of the dike, the area inland of the dike would have very little, if any habitat value. The Corps believes that this biological impact is justified by the degraded nature of the area (degraded by turbidity and sedimentation from the landslide) and the biological benefits from the proposed project. However, as discussed above, the Corps has not presented enough information for the Commission to conclude that the project would restore

marine resources. Therefore, the project adversely affects coastal resources in a manner inconsistent with Section 30230 of the Coastal Act and does not provide for adequate mitigation pursuant to Section 30233(a) of the Coastal Act.

The Corps proposes to place the dike 400 feet offshore in order to place the structure in a geologically stable area. However, the Corps has not gathered enough geotechnical information to accurately make such a conclusion. The dike may be constructed landward of the toe of the slide or it may activate another slide. The Corps rejects additional geotechnical studies, because of the cost of studies. Without such information, the Commission cannot concur with the Corps' conclusion that the dike would be located in a geologically stable area, and thus, it cannot determine if the proposed dike is consistent with Section 30253 of the Coastal Act.

The proposed project would be located in a highly scenic area and would alter the visual character of the area, because it would not be subordinate to the natural setting. Therefore, the project is inconsistent with the Visual Policy (Section 30251) of the Coastal Act.

The proposed project includes the construction and utilization of a road through Environmentally Sensitive Habitat Area (ESHA). This ESHA supports the California gnatcatcher, a federally listed threatened species, and possibly may support the Palos Verdes and El Segundo blue butterflies, federally listed endangered species. The construction and utilization of the road would significantly disrupt the habitat use of the ESHA and is not a resource dependent use. Therefore, the project is not consistent with Section 30240 of the Coastal Act.

There are several recreational beaches located downcoast of the proposed project. The dike would capture sediment from the landslide. Some of that sediment is beach compatible material that supplies sand for those beaches. Since the public uses these areas for recreational purposes, the loss of sand would adversely affect that use. Therefore, the project is inconsistent with Sections 30210 and 30221 of the Coastal Act.

The proposed project includes maintenance dredging of material accumulated behind the dike. Such maintenance activity is not consistent with the allowable use policy of the Coastal Act because it is not required to support existing navigation or boat berthing. Additionally, the dredged material would be disposed of at LA-2, an EPA designated ocean disposal site. However, the consistency determination lacks sufficient information to determine if such disposal is consistent with the water quality and sand supply policies of the Coastal Act.

## **SUBSTANTIVE FILE DOCUMENTS:**

1. Rancho Palos Verdes, Draft Feasibility Report, June 2000.
2. U.S. Fish and Wildlife Service draft Coordination Act Report, April 1999

## **STAFF SUMMARY AND RECOMMENDATION:**

### **I. Project Description.**

The project involves the construction of a 2,520 foot-long dike located 400 feet seaward of the existing bluff toe at Portuguese Bend. The maximum crest elevation is +24 feet MLLW. The dike is designed with a core elevation of +6 feet MLLW to retain sediment to the Mean Higher High Water tide level. This alternative would rely on natural scouring for removal of sediment deposits to restore rocky habitat.

Rock for the dike would be delivered to the site by either a barge from Catalina Island or trucked from an upland source. If an upland source were used, the Corps would construct a road to the project site. Armor stone would be keyed into position such that the long axis of the stone is perpendicular to the face and centerline of the dike.

The project includes the removal of seven million cubic yards of sediment every 50 years. The Corps would remove the material with loaders, truck-mounted crawler cranes and dozers and the Corps would dispose of the material at LA-2, an EPA designated ocean dredged material disposal site.

### **II. Status of Local Coastal Program.**

The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the Commission certified the LCP and incorporated it into the CCMP, the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Commission has fully incorporated the Rancho Palos Verdes LCP into the CCMP.

### **III. Federal Agency's Consistency Determination.**

The Corps of Engineers has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

#### **IV. Staff Recommendation.**

##### **A. Motion.**

*I move that the Commission agree with consistency determination CD-074-00 that the project described therein is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program (CCMP).*

##### **B. Recommendation.**

Staff recommends a **NO** vote on the motion. Failure of this motion will result in a disagreement with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

##### **C. Resolution.**

*The Commission hereby disagrees with the consistency determination by Corps of Engineers, on the following grounds: 1) that the project described therein is not consistent to the maximum extent practicable with the enforceable policies of the CCMP; and 2) that the consistency determination does not contain enough information to evaluate the project's consistency with the CCMP.*

#### **V. Maximum Extent Practicable.**

Section 930.32 of the federal consistency regulations provide that:

*The term "consistent to the maximum extent practicable" describes the requirement for Federal activities including development projects directly affecting the coastal zone of States with approved management programs to be fully consistent with such programs unless compliance is prohibited based upon the requirements of existing law applicable to the Federal agency's operations. If a Federal agency asserts that compliance with the management program is prohibited, it must clearly describe to the State agency the statutory provisions, legislative history, or other legal authority which limits the Federal agency's discretion to comply with the provisions of the management program.*

The Commission recognizes that the standard for approval of Federal projects is that the activity must be "consistent to the maximum extent practicable" (Coastal Zone Management Act Section 307(c)(1)). This standard allows a federal activity that is not

fully consistent with the CCMP to proceed, if compliance with the CCMP is “*prohibited [by] existing Federal law applicable to the Federal agency's operations*” (15 C.F.R. § 930.32). The Corps has not demonstrated that this project is consistent to the maximum extent practicable with the CCMP by citing and “statutory provision, legislative history, or other legal authority which limits its ... discretion to comply with the provisions of the” CCMP (15 C.F.R. § 930.32(a)). Therefore, there is no basis for the Commission to conclude that although the proposed project is inconsistent with the CCMP, it is consistent to maximum extent practicable.

#### **VI. Necessary Information:**

Section 930.42(b) of the federal consistency regulations (15 CFR Section 930.42(b)) requires that, if the Commission's objection is based on a lack of information, the Commission must identify the information necessary for it to assess the project's consistency with the CCMP. That section states that:

*If the State agency's disagreement is based upon a finding that the Federal agency has failed to supply sufficient information (see Section 930.39(a)), the State agency's response must describe the nature of the information requested and the necessity of having such information to determine the consistency of the Federal activity with the management program.*

As described fully in the Marine Resource, Geologic Stability, and Dredging sections below, the Commission has found this consistency determination lacks the necessary information to determine if the proposed project is consistent with Sections 30230, 30233, and 30253 of the Coastal Act. In order to evaluate the project's consistency with the CCMP, the Commission needs the following information:

**A.** Documentation that demonstrates that the kelp beds south of Portuguese Bend are degraded. The Documentation requires on site monitoring of at least two years that represent relatively “normal” years. By “normal” the Commission means average conditions for the area in terms of water temperature and quality, and storm conditions. For example, data from an El Niño condition would not provide adequate information to document the degraded nature of the kelp habitat.

**B.** Documentation that demonstrates that turbidity is the predominate cause for degradation of the kelp habitat, if monitoring documents that the habitat is degraded. The monitoring should also consider other possible factors affecting the quality of the habitat such as water pollution, sediment contamination, predation, and climatic conditions. This data also requires two years of monitoring and shall be done concurrent with the monitoring for the condition of the kelp habitat.

C. A Further evaluation of the no-project alternative to determine if kelp habitat at Portuguese Bend Cove would naturally be restored.

D. Provide additional geologic data to demonstrate the following:

1. The proposed dike is located seaward of the toe of the landslide.
2. The proposed dike would not reactivate another landslide seaward of the Portuguese Bend landslide.

E. If maintenance dredging of the area remains part of the project, the Corps should provide physical and chemical test results as required by the *Evaluation of Dredged Material Proposed For Ocean Disposal* (the Green Book).

## **VII. Project modifications.**

Section 930.42(a) of the federal consistency regulations (15 CFR § 930.42(a)) requires that, if the Commission's objection is based on a finding that the proposed activity is inconsistent with the CCMP, the Commission must identify measures, if they exist, that would bring the project into conformance with the CCMP. That section states that:

*In the event the State agency disagrees with the Federal agency's consistency determination, the State agency shall accompany its response to the Federal agency with its reasons for the disagreement and supporting information. The State agency response must describe (1) how the proposed activity will be inconsistent with specific elements of the management program, and (2) alternative measures (if they exist) which, if adopted by the Federal agency, would allow the activity to proceed in a manner consistent to the maximum extent practicable with the management program.*

As described in the findings below, the proposed project is inconsistent with the Visual, ESHA, and Recreation Policies of the CCMP. Pursuant to this federal regulation, the Commission is responsible for identifying measures, if they exist, that would bring the project into compliance with the CCMP. The Commission believes that it is not possible to bring this project into compliance with the Visual Policy of the CCMP. As described below, the proposed project would degrade the visual resources of the area and the Corps cannot avoid or mitigate this impact if it constructs the dike.

The following measures could bring the project into compliance with the Recreation and ESHA Policies of the CCMP.

**A.** The Corps should add a beach replenishment component to the project that would supply the recreational beaches with an equivalent amount of sand to that which is trapped by the dike.

**B.** The removal of material in order to maintain the area behind the dike is not allowable under the Coastal Act. The Corps could avoid the project's impacts on ESHA resources by deleting the proposed access road from the project description. An ocean going barge should provide all access to the site for construction equipment and supplies, personnel, and maintenance activities.

#### **VIII. Conflict Resolution.**

Section 30007.5 of the Coastal Act provides the Commission with an opportunity to consider competing Coastal Act policies should there be a conflict between any Chapter 3 policies. Specifically, that section provides that:

*The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.*

Since the stated purpose of this project is to restore marine resources, the Commission must consider whether the project creates a conflict between those policies that encourage restoration of marine resources and those policies that protect other coastal resources. In this case, however, the project does not create a conflict. As described below, the project would not necessarily restore habitat within the Portuguese Bend Cove area. Additionally, the Corps consistency determination does not contain enough information for the Commission to conclude that the project would enhance downcoast kelp habitat. Finally, the manipulation of a natural phenomenon to promote a certain kind of habitat is not a restoration project. Therefore, the project is not a restoration project and it does not create a conflict among Coastal Act policies.



## **IX. Findings and Declarations.**

The Commission finds and declares as follows:

**A. Marine Habitat.** Section 30230 of the Coastal Act provides that:

*Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30233 of the Coastal Act provides, in part, that:

*(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

...

*(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*

...

*(7) Restoration purposes.*

Section 30235 of the Coastal Act provides that:

*Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*

**1. Shoreline Structure.** Pursuant to the requirements of Section 30235 of the Coastal Act, the Commission must permit shoreline structures when required to serve coastal-dependent use or protect existing structures or public beaches in danger of erosion. There are no existing structures or uses (coastal dependent or otherwise) protected by the proposed dike. In addition, the dike would not protect any public beaches. Therefore, the Commission finds that it is not required to permit this structure.

**2. Allowable Use.** The dike would result in the placement of approximately 420,000 square feet (9.64 acres) of fill. Section 30233(a) of the Coastal Act identifies eight allowable uses for placement of fill into the marine environment. Section 30233(a) does not authorize open coastal water fill unless it meets the “allowable-use” test. To meet this test, the activity must fit into one of eight categories of uses permitted for open coastal water fill enumerated in Sections 30233(a)(1-8). Fill for the proposed project could possibly fall within two of the eight categories: 1) incidental public service purpose; and 2) restoration purposes.

**a. Incidental Public Services Purposes.** Because the proposed project is constructed by a public agency, the Commission must consider whether the fill falls within section 30233(a)(5). This section authorizes fill for “*Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*”

In order to determine if the fill is for an incidental public service purpose, the Commission must determine that purpose is both incidental and a public service. Since the dike will be constructed by a public agency the fill is for a public-service purpose. However, it is not clear that the fill is “incidental” within the meaning of that term as it is used in Section 30233(a)(5). The Commission has previously found the word “incidental” to mean not the primary development. The courts have defined the term incidental as “depending upon or appertaining to something else as primary” (*Davis v. Pine Mountain Lumber Co.* (1969) 273 Cal.App.2d 218, 222-223 [77 CR 825].) In this case, the primary activity is the construction of a dike, which results in the placement of fill into open coastal waters. Since the dike is the primary development, the fill is not incidental to the project. Therefore, the Commission finds that the fill is not an incidental public service purpose.

**b. Restoration Purposes.** The Corps describes the purpose of the project as restoring marine resources. However, the Commission is reluctant to find that a 2,500-foot long, 24-foot high rock dike is a restoration project. In order for the Commission to accept such a conclusion, the Corps must conclusively demonstrate that the project would result in the restoration of marine resources. The Commission does not believe that the Corps has demonstrated such a conclusion. In fact, the Corps basis its conclusion on several unproven assumptions, and thus, its conclusions are questionable.

The Corps believes that the project would restore marine resources in two ways: 1) reduction of sedimentation in the Portuguese Bend area seaward of the dike and allowing natural littoral processes to remove unconsolidated sediment and re-expose hard-rock habitat; and 2) reduction of turbidity that may be adversely affecting downcoast kelp habitat. The Commission, however, believes that the Corps consistency determination and supporting documentation does not provide enough information to conclude that the proposed project would provide these restoration benefits.

**Portuguese Bend.** In its feasibility study, the Corps states that the proposed project would capture most of the sediment from the Portuguese Bend landslide (Exhibit 4) and trap it on the inland side of the dike. The Corps assumes that if it constructs this dike, new sedimentation would be stopped and existing soft-bottom areas would erode back to hard-rock habitat. In its feasibility study, the Corps states that:

*The Portuguese Bend landslide and adjacent landslides became active in the 1956 time frame. Since 1956, it is estimated that over 6,000,000 cubic yards of material has been eroded from the landslide bluff by wave action. This sediment budget indicates on an average annual basis that about 89,000 cubic yards is deposited in the Portuguese Bend marine area, and 79,000 cubic yards is moved downcoast and offshore. The deposition of landslide material has impacted about 71 acres of rocky habitat in the Portuguese Bend area, and has increased turbidity causing impacts to existing reefs and kelp along about 163 acres at Bunker Point and 230 acres from Bunker Point to Whites Point.<sup>1</sup>*

The Corps concludes that the Portuguese Bend landslide is the most significant source of sediment affecting this area and, by capturing this sediment, natural littoral processes would erode existing sediment from covered hard rock areas and allow kelp communities to be established in this area. These hard rock areas would provide habitat for giant kelp, which would be re-established in the area. However, most of the area seaward of the dike is too shallow to support a giant kelp forest. Giant kelp generally grows at a depth below 20 feet mean lower low water. According to the Corps' feasibility study, the area below 20 feet MLLW would take over 80 years before the hard rock habitat is re-exposed. Over that period of time, any number of factors could affect kelp habitat and prevent its restoration.

In addition, the Corps has not established that sedimentation from the landslide is the only factor that prevents kelp from growing in this area. In its draft Fish and Wildlife

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<sup>1</sup> Draft Feasibility Report, Rancho Palos Verdes, June 2000.

Coordination Act report, the U.S. Fish and Wildlife Service (Service) presented convincing information that the kelp beds in the Palos Verdes Peninsula area had disappeared before re-activation of the landslide at Portuguese Bend (Exhibit 5). By 1956, when the landslide was re-activated there was almost no kelp in this area. The Service suggests that water pollution may have been the primary factor in the degradation of kelp habitat in this area. Thus, isolating sediment from the landslide may not remove the only factor that prevents the re-establishment of kelp in this area.

Finally, the Corps describes the sediment covering the hard rock areas in the Portuguese Bend cove as suspended material that has been deposited. There is little doubt that the source of most the material is from the landslide. However, the covering of the hard rock habitat is not solely related to the volume or source of the material. Rather, the deposition of suspended sediments dependent on wave energy. Sediment is deposited on the ocean floor when the wave energy is no longer sufficient to “hold” or move sediment. Therefore, the sediment is covering areas because there is insufficient wave energy to keep the material suspended. If the Corps constructs the proposed dike, it would not affect the offshore wave energy and the area would likely continue to be depositional. Sediment from sources other than the landslide would continue to be deposited in these areas even if the Corps constructs the dike. Additionally, wave energy is not likely to be sufficient enough to resuspend sediment that has already been deposited in this area. Therefore, the Commission finds that the proposed dike would not result in the restoration of hard rock habitat.

**i. Turbidity Control.** The Corps states that one of the primary purposes of the proposed dike is to improve existing kelp habitat downcoast of the proposed dike. According to the Corps, the existing kelp forests south of Portuguese Bend are severely degraded by landslide generated turbidity. However, the Corps did not provide sufficient information to document the degraded state of the kelp beds and provided no data to support the conclusion that turbidity is the cause of this degradation, if it exists. Therefore, the Commission finds that the Corps’ consistency determination lacks sufficient information to determine if the project is consistent with the CCMP.

In its feasibility study, the Corps states that the kelp beds south of the landslide, in the area of White’s Point, are degraded. It bases its conclusion on one sample of the fish use and benthic organisms within the habitat. This one sample is not sufficient to determine if the kelp ecosystem is degraded. In fact, the kelp plants are growing successfully in this area. The Corps survey of these kelp beds shows that the habitat was not utilized at that point in time. The Corps does not provide a long-term study documenting its conclusion that the kelp habitat in this area is not sufficiently utilized by marine organisms. The Corps’ test results may be inaccurate because of collection methods or timing of the collection. Other factors, such as El Niño, water pollution, or storm events could have affected the Corps data collection. Therefore,

the Commission believes that there is not sufficient data to determine if the area is degraded. It is inappropriate to build a massive dike to restore the habitat value of the down coast kelp beds without sufficient data to demonstrate that the habitat value of that area is degraded and in need of protection.

Even if the Corps could provide adequate information to demonstrate that the kelp habitat in the White's Point area is degraded, it does not provide any evidence to support the conclusion that turbidity from the Portuguese landslide is the cause of the problem. In fact, the Corps states in its feasibility study that it "assumes" that the turbidity is affecting this area. Considering the fact that these kelp ecosystems are located adjacent to a sewage plant outfall and Superfund site, it is very possible that there are other factors affecting the habitat value of the area. Therefore, the Commission finds that the Corps' consistency determination lacks sufficient information to determine that the dike is a restoration project that is necessary to protect down coast kelp habitat.

ii. **Landslide Stabilization.** Finally, the Commission does not believe that the purpose of the proposed project is to restore kelp habitat. In fact, the Corps proposed a similar project several years ago, which had a purpose of stabilizing the landslide. The Corps' Headquarters Office in Washington, D.C., rejected the plan because the Corps is not in the business of stabilizing landslides. The proposed project appears to be similar to the previously investigated project. However, it has been re-characterized as a restoration project.

c. **Conclusion.** In conclusion, the Commission finds that the proposed containment dike would not restore kelp habitat in the Portuguese Bend area, and therefore, this aspect of the project is not a restoration project. The Commission also finds that the Corps' consistency determination lacks sufficient information to determine if the dike would improve downcoast kelp habitat. The Corps has not documented that that habitat is degraded and that sedimentation from the landslide is the cause of that degradation. Therefore, the Commission concludes that the consistency determination for the proposed project does not contain enough information to determine if the dike is an allowable use pursuant to the requirements of Section 30233(a) of the Coastal Act.

3. **Alternatives.** In addition to the allowable use requirements of Section 30233(a), that section of the Coastal Act requires the Commission to approve only the least environmentally damaging feasible alternative. In its EIS, the Corps evaluates three alternatives to the proposed project: the "no-project" alternative, a containment dike 50 feet offshore, and a containment dike 200 feet offshore. The proposed project, which is a containment dike 400 feet offshore, was selected as the preferred alternative because the Corps believes that that alternative is most likely to be seaward of the toe of the landslide. The Corps rejected from further consideration all other alternatives to manage sediment from the landslide, including stabilizing the

landslide. Additionally, the Corps did not consider other ways to enhance marine resources, such as construction of an artificial reef or placement of boulders that would increase the amount of hard rock habitat. In other words, the Corps' alternative analysis is limited to no project or construction of a containment dike.

Additionally, the Commission believes that the "no-project" alternative may be a less damaging feasible alternative. The Corps estimates that the landslide produces 89,000 cubic yards of sediment per year that is deposited in Portuguese Bend cove. This estimate is based on the annual average of sedimentation in the cove since the landslide reactivated. However, the Corps estimates are based on three data points. In 1933 and 1976, the National Ocean Services gathered data on the subsurface conditions in the area. The Corps conducted a hydrographic survey in 1995. From these three surveys, the Corps has estimated the annual deposition in the area and has concluded that most of it landslide sediment. However, three hydrographic surveys are not enough data to make these conclusions. There could be many factors affecting deposition of sediment in this area that could or could not be related to the landslide. The only conclusion that Corps can make from the data is that the ocean floor has changed over time.

Even if the data are sufficient to allow the Corps to make its conclusions, the Commission believes that current deposition rate is significantly less than the Corps estimates. As shown in the table below,<sup>2</sup> the deposition of sediment between 1976 and 1995 is significantly less than the deposition between 1933 and 1976. Based on the total changes of bathymetry between hydrographic surveys, the Corps estimates that the annual deposition of sediment between 1933 and 1976 was 162,600 cubic yards per year (which assumes without any evidence that there was no deposition between 1933 and 1956, when the landslide were reactivated). However, between 1976 and 1995, the Corps estimates that only 11,600 cubic yards of sediment per year was deposited in this area.

Therefore, based on the limited data supplied by the Corps, one can conclude that in

Table 2-10. Control Volume Change		
Surveys Compared	Net Volume Change (cubic yards)	Annual Accumulation (cubic yards/year)
1933 to 1976	+3,252,000	+162,600 <sup>1</sup>
1976 to 1995	+220,600	+11,600
1933 to 1995	+3,472,600	+89,041 <sup>1</sup>
<sup>1</sup> Assumes accumulation occurred between 1956 and 1976		

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<sup>2</sup> Feasibility Study, p. 2-29.

the last 20 years, the deposition of sediment in the area is significantly less, by an order of magnitude, than it was in the previous 20-year period. The limited amount of evidence suggests that the deposition of sediment is declining over time. If the amount of deposition continues to decline and there is sufficient wave energy to remove existing sediment (which the Corps has not demonstrated), one can conclude that the area would be restored naturally. In other words, one could conclude that the “no-project” alternative would result in the restoration of hard rock habitat. The Commission, however, is reluctant to make this conclusion. The data presented by the Corps is insufficient to make any conclusions. However, there is enough information to at least question the conclusion that if nothing is done, the area would continue to degrade.

In summary, the Corps alternative analysis is insufficient for the Commission to conclude that the proposed project is the least damaging feasible alternative. The Corps has not considered any alternative mechanisms to managing sedimentation other than the construction of a dike. Additionally, the data the Corps uses to reject the “no-project” alternative are insufficient to determine if it would result in restoration of marine resources. Therefore, the Commission concludes that the Corps’ consistency determination does not contain enough information for it to find that the proposed project is the least environmentally damaging alternative.

**4. Biological Productivity and Mitigation.** The proposed project would significantly affect marine resources. The dike would cover approximately 420,000 square feet (9.64 acres) of subtidal and intertidal soft bottom habitat. Additionally, the dike would contain sediment from the landslide in the area between the dike and the shoreline. This area would be subject to significant habitat impacts from the contained turbidity. In addition, the reduction in water circulation, which could result in decreased dissolved oxygen and water quality and an increase in water temperature, would further reduce its habitat values. After construction of the dike, the area inland of the dike would have very little, if any, habitat values.

As such, the project is inconsistent with Section 30230 of the Coastal Act. The Corps believes that this biological impact is justified by the degraded nature of the area (degraded by turbidity and sedimentation from the landslide) and the biological benefits from the proposed project. However, as discussed above, the Corps has not presented enough information for the Commission to conclude that the project would restore marine resources. Therefore, there is no basis for the Commission to find that the project would enhance biological productivity seaward of the dike and would be on balance a beneficial project. In other words, the project clearly has an adverse impact to marine habitat below and inland of the dike but there is insufficient evidence to demonstrate that the project would enhance resources seaward of the dike. Without this benefit, the project’s impacts would not be mitigated. Since the project does not contain enough information to determine if the dike would result in the restoration of marine resources, the Commission cannot determine if consistency

determination provides for adequate mitigation. Therefore, the Commission finds that the Corps' consistency determination does not contain enough information to determine if the project is consistent with the mitigation requirement of Section 30233(a) of the Coastal Act.

**B. Geologic Stability.** Section 30253 of the Coastal Act provides, in part, that:

*New development shall:*

...

*(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

...

The Corps proposes to place the dike 400 feet offshore in order to place the structure in a geologically stable area. However, the Corps has not gathered enough geotechnical information to accurately make such a conclusion. In its geotechnical appendix, the Corps states that:

*[T]he available information does not confirm that the near shore area is stable. Any structure proposed within 400 feet of the existing shoreline (out to a water depth of -10 to -20 feet MLLW) could be subject to displacement, either along an active slide, the reactivation of inactive slide planes, development of new sliding surfaces within the south dipping bedrock, or seaward movement of the landslide mass over the existing sea floor.<sup>3</sup>*

Despite the strong possibility that even the proposed location 400 feet offshore might be susceptible to geologic instability, the Corp concludes that:

*It can be reasonably assumed...that stable foundation conditions exist 400 feet from the existing shoreline along the Portuguese Bend Landslide and that a structure built at that distance would not be adversely impacted during its 50-year design life.<sup>4</sup>*

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<sup>3</sup> EIS, geologic appendix.

<sup>4</sup> EIS, geologic appendix.



The Corps rejects additional geotechnical studies, because the cost of the studies necessary to gain additional information to assess the area's instability is prohibitively expensive. Without such information, the Commission cannot concur with the Corps' conclusion that the dike would be located in a geologically stable area. The Corps has provided no data that would allow a finding that the structure can be built so as to assure stability and structural integrity and not contribute significantly geologic instability (Exhibit 6). Even though the Corps admits that the position of the toe of the landslide cannot be accurately assessed, it concludes that active slide planes are not likely to be present 400 feet offshore. In other words, the proposed structure could be located on the existing slide and may not be structurally secure because of the movement of that slide. In addition, the Corps does not address the question of whether additional loading of the seaward-dipping beds by a massive revetment could instigate movement on new slide planes. In both of these cases, the dike would possibly be unstable, and the Commission cannot determine if the proposed dike would contribute significantly to geologic instability. Therefore, the Commission finds that Corps' consistency determination lacks sufficient information to determine if the project is consistent with Geologic Stability policy of the CCMP.

**C. Visual Resources.** Section 30251 of the Coastal Act provides, in part, that:

*The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, ... to be visually compatible with the character of surrounding areas.... New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

The shoreline around the Palos Verdes Peninsula is a highly scenic area. It consists of rolling hills with dramatic cliffs and bluffs at the shoreline. The visual character of the area is appreciated from both public areas on land and boats viewing the area from offshore. The proposed project would add a major human development in the offshore area. The proposed dike would be approximately a half-mile long and 24 feet above mean lower low water and very visible from upland and offshore areas. Since the bluffs and beaches in this area are relatively undeveloped, this massive dike would not be subordinate to the natural coastal character of the area.

In its EIS, the Corps concludes that the project's visual impacts are not significant because of the offshore turbidity and scarred nature of the bluffs caused by the landslide. The Commission disagrees with this conclusion. The turbidity and bluff face are natural phenomenon that add to the dramatic nature of the area and do not necessarily distract from the visual resources. However, the proposed dike would be

very different from the natural character of the area and would severely degrade the visual resource. Therefore, the Commission finds that the proposed project is inconsistent with the visual resource policies of the CCMP.

**D. Environmentally Sensitive Habitat Areas.** Section 30240(a) of the Coastal Act provides that:

*(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*

The U.S. Fish and Wildlife Service has identified the upland areas above the Portuguese Bend as habitat for the California gnatcatcher, a federally listed threatened species. The gnatcatcher is a small songbird that is obligate to coastal sage habitat, including the upland areas of the Corps' study area. The area may also support habitat for the Palos Verdes and El Segundo blue butterflies, federally listed endangered species.

*Both of the larval host plants for the PVBB [Palos Verdes Blue Butterfly] occur within the CSS [coastal sage scrub] vegetative communities in the study area. Service personnel conducted a brief survey for the PVBB near the Abalone Cove portion of the study area on March 20, 1994 (Nelson 1994). This survey was cursory in nature, and was conducted late in the flight season thereby reducing the potential for detecting small populations. No thorough survey has been conducted for this species in the study area at the appropriate time of year.*

...

*The current distribution of the ESBB [El Segundo Blue Butterfly] includes portions of the Palos Verdes Peninsula. A taxonomic variant of the ESBB, a square spotted blue butterfly, also occurs within the Portuguese Bend landslide area. Because the taxonomy of these two closely related butterflies is in question, the Service suggests that for now both be considered as ESBB. If biochemical tests suggest that the square spotted blue butterfly is distinct from the ESBB, then because of its limited distribution, the square spotted blue butterfly may warrant listing as endangered as well. The host larval food plant for the ESBB and the square spotted blue butterfly is the seacliff buckwheat (*Eriogonum parvifolium*). This plant occurs along the coastal bluffs in*

*the study area. However, no thorough survey has been conducted for the ESBB or the square spotted blue butterfly in the study area.*<sup>5</sup>

Since the area upland of the cove contains at least one endangered species, the area meets the Coastal Act definition of an Environmentally Sensitive Habitat Area (ESHA). Section 30240(a) of the Coastal Act limits the type of development in ESHAs to that which is dependent on the resources and does not result in significant disruptions of the habitat value. Although the proposed project would be constructed offshore, one of the construction alternatives allows for grading of a road through this area and transporting rock from an upland quarry down the bluff to the project site. In addition, maintenance activities may require the transportation of heavy equipment over this road and down to the project site. In a letter dated August 18, 2000 (Exhibit 7), the California Department of Fish and Game describes this impact as follows:

*Alternative 2 or 2a would require 22,390 one-way truck trips to deliver approximately 343,850 tons of quarry rock. Thus, if quarry rock came solely from mainland sources, the number of total truck trips trucks traveling across the terrestrial portion of the study area could range from 26,510 to 44,780 truck trips, which averages 103 to 116 truck trips per day assuming a 5 day work week. Truck trips would be on an existing undeveloped road which would be extended 1500 feet and widened from 12 to 14 feet, impacting approximately 0.6 to 0.7 acres of terrestrial habitat. These trips do not include additional vehicles associated with construction of the dike. The DEIS/DEIR fails to include the expected impacts such as; driving off road (either on purpose or accidentally), dust, noise, oil and other contaminants from leaky trucks, littering, breakdowns, spills, and air pollution. The DEIS/DEIR also fails to mention staging or stockpile areas, nor does it account for the number of truck trips associated with dike maintenance, estimated in the DCAR [Draft Coordination Act Report] at 200 trips per day. In addition, there is no discussion about the impacts of heavy traffic on the landslide and the likelihood of increased landslide movement.*<sup>6</sup>

Both the construction of the road and truck transportation of quarry material would adversely affect the ESHA. The construction of a road would entail to grading and possibly paving over coastal sage scrub habitat. This activity would result in a direct loss of ESHA. In addition, the transportation of rock to the site would require up to 116 truck trips per day. This level of traffic would create physical, noise, and air and

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<sup>5</sup> USFWS draft Coordination Act Report, April 1999, p. 48

<sup>6</sup> Letter dated August 18, 2000.

water quality impacts that may affect sensitive species using the coastal sage scrub habitat. The disturbances may interfere with nesting, feeding, rearing, and resting activities of the wildlife located in the vicinity of the road. These project impacts have the potential to significantly affect these sensitive species.

Additionally, the proposed road is not dependent on sensitive resources to function. In this case the activity is to transport construction material and project equipment to the construction site. Access to the site can also be provided by ocean going barge. The barge could be used to transport construction, material, personnel, and equipment to the site. Since access can occur without utilizing the sensitive habitat resource, the Commission concludes that the access is not dependent on the sensitive upland resources. Therefore, the Commission finds that the project is not a resource dependent activity.

In conclusion, the Commission finds that the construction and utilization of a road through ESHA for the development of this proposed dike would significantly disrupt the habitat values of the area. Additionally, the Commission finds that the proposed road is not a resource dependent activity. Therefore, the Commission finds that the proposed project is not consistent with the Sensitive Habitat policy of the CCMP.

**E. Recreation and Sand Supply.** Section 30210 of the Coastal Act provides that:

*In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

In addition, Section 30221 of the Coastal Act provides that:

*Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

Royal Palms State Beach is located down coast of the proposed project. This beach is located just north of White Point and the proposed dike would not be visible from the State Beach. Additionally, there are several pocket beaches between the project site and the state beach. According to the Corps, the proposed project would contain sediment from the landslide. The landslide generates approximately 146,000 cubic yards per year of material into the littoral system. Although the Corps states that

considerable amount of this material is composed of fines (clays and silts), a significant portion of the sediment is sand. According to the Corps, approximately 50% of the sediment is composed of fines. The remainder must be made of sand and rocks, which means that the landslide represents a significant source of sediment that supports beach replenishment. The proposed project, however, would trap this sediment and may deprive the beach of some of its sand. Since these beaches are used for recreational purposes, the sand supplied by the landslide supports recreational resources. Therefore, the capturing of this sand would adversely affect recreational resources. In conclusion, the Commission finds that the proposed dike is inconsistent with the recreation policies of the CCMP.

**F. Maintenance Dredging.** Section 30230 of the Coastal Act provides that:

*Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30233(a) of the Coastal Act provides, in part, that:

*The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

...

(2) *Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*

...

Section 30233(b) of the Coastal Act provides that:

*Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be*

*transported for such purposes to appropriate beaches or into suitable long shore current systems.*

The proposed project includes dredging of seven million cubic yards of material every 50 years. The Corps proposes to dispose of this material at LA-2, an EPA approved ocean disposal site located offshore of the Palos Verdes Peninsula. The proposed dredging is not consistent with Section 30233(a) of the Coastal Act. The Coastal Act allows for dredging in marine environment for the maintenance of **“existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.”** Since the proposed dredging is not for any of these uses, it is not consistent with Section 30233(a)(2).

Even if the dredging was an allowable use, the ocean disposal of this material raises other Coastal Act issues. Disposal of material at LA-2 requires physical and chemical testing to determine if it is suitable for ocean disposal. Obviously, since the Corps does not intend to dredge this material for 50 years, it has not been tested. The material may be predominantly sand and suitable for beach replenishment. In that case, disposal of this material at LA-2, which is outside of the littoral system, would be inconsistent with Section 30233(b) of the Coastal Act. Additionally, the material may contain contaminants making it unsuitable for ocean disposal. At this point in time, it is that it is premature to determine if the disposal of maintenance material is consistent with the CCMP. The Commission does not have the physical or chemical test results to determine if the disposal is suitable for placement at LA-2. Therefore, the Commission finds that the Corps' consistency determination lacks sufficient information to determine if the disposal activities are consistent with Sections 30230 and 30233(b).